

Title (en)

SYSTEM FOR INCREASING PERCEIVED LOUDNESS OF SPEAKERS

Title (de)

SYSTEM ZUR ERHÖHUNG DER WAHRGENOMMENEN LAUTSTÄRKE EINES LAUTSPRECHERS

Title (fr)

SYSTÈME POUR ACCROÎTRE L'INTENSITÉ PERÇUE DE HAUT-PARLEURS

Publication

EP 2465200 B1 20150225 (EN)

Application

EP 09848326 A 20090811

Priority

US 2009053437 W 20090811

Abstract (en)

[origin: WO2011019339A1] A system can be provided for increasing loudness of an audio signal to present a perceived loudness to a listener that is greater than a loudness provided natively by a loudspeaker. The system can include one or more of the following: a frequency suppressor, a loudness adjuster, an equalizer, and a distortion control module. The frequency suppressor can increase headroom in the audio signal by filtering out low and/or high frequencies. The loudness adjuster can calculate a loudness of the audio signal and apply a gain to the audio signal to increase the loudness. The equalizer can further increase headroom by attenuating portions of a passband of the loudspeaker's frequency response. The distortion control module can induce partial harmonic distortion in the audio signal to further increase loudness.

IPC 8 full level

H03G 3/00 (2006.01); **H03G 9/00** (2006.01); **H03G 9/02** (2006.01); **H04R 3/04** (2006.01); **H04S 1/00** (2006.01); **H03G 5/16** (2006.01)

CPC (source: EP KR)

H03G 3/00 (2013.01 - KR); **H03G 5/165** (2013.01 - EP); **H03G 9/005** (2013.01 - EP); **H03G 9/025** (2013.01 - EP); **H04R 3/00** (2013.01 - KR);
H04R 3/04 (2013.01 - EP); **H04R 2400/00** (2013.01 - EP); **H04R 2430/01** (2013.01 - EP)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

WO 2011019339 A1 20110217; CN 102474232 A 20120523; CN 102474232 B 20141022; EP 2465200 A1 20120620; EP 2465200 A4 20140129;
EP 2465200 B1 20150225; HK 1167526 A1 20121130; JP 2013502148 A 20130117; JP 5694324 B2 20150401; KR 101681798 B1 20161201;
KR 20120052999 A 20120524

DOCDB simple family (application)

US 2009053437 W 20090811; CN 200980160873 A 20090811; EP 09848326 A 20090811; HK 12106545 A 20120704;
JP 2012524683 A 20090811; KR 20127004284 A 20090811